What is claimed is:

1. A failsafe actuator for returning an actuator driven element to a failsafe position in case of a failure condition, said actuator comprising:

a drive assembly configured to drive said actuator driven element, said drive assembly comprising a plunger having at least a first plunger position, said actuator driven element responsive to said plunger such that said actuator driven element is in said failsafe position when said plunger is in said first plunger position; and

a stored energy element configured to drive said plunger to said first plunger position, and hence drive said actuator driven element to said failsafe position, upon detection of said failure condition.

2. The failsafe actuator of claim 1, wherein said stored energy element comprises at least one of a torsion spring and a clock spring, wherein said spring is in a preloaded condition when said plunger is not in said first plunger position.

3. The failsafe actuator of claim 1, wherein said drive assembly further comprises an electric motor and a gear train.

4. The failsafe actuator of claim 3, wherein said stored energy element is disposed between said electric motor and said gear train.

5. The failsafe actuator of claim 1, wherein said failure condition is a loss of

electrical power to said drive assembly.

6. The failsafe actuator of claim 1 further comprising an electromechanical mechanism configured to maintain said plunger in said second plunger condition, said electromechanical mechanism configured to release said plunger upon detection of a failure condition.

7. The failsafe actuator of claim 1, wherein said driven element is a stabilizer bar and said failsafe position provides activation of said stabilizer bar.

8. A failsafe actuator for returning an actuator driven element to a failsafe position in case of a failure condition, said failsafe actuator comprising:

a drive assembly configured to drive a plunger from a first plunger position to a second plunger position; and

a stored energy element configured to drive said plunger from said second plunger position to said first plunger position upon said failure condition, said actuator driven element responsive to said plunger such that said actuator driven element is in said failsafe position when said plunger is in said first plunger position.

9. The failsafe actuator of claim 8, wherein said stored energy element comprises at least one of a torsion spring and a clock spring coupled to said drive assembly, wherein said stored energy element is in a preloaded condition when said plunger is in said second plunger

position.

10. The failsafe actuator of claim 8 further comprising an electromechanical mechanism configured to maintain said stored energy element in a preloaded condition when said plunger is in said second plunger position, and is further configured to release said stored energy element upon said failure condition.

11. The failsafe actuator of claim 10, wherein said electromechanical mechanism is configured to lock a shaft of said stored energy element against rotation when said plunger is in said second plunger position.

12. The failsafe actuator of claim 10, wherein said electromechanical mechanism is configured to hold said plunger in at least said second plunger position against said stored energy element and further configured to release said plunger upon said failure condition.

13. The failsafe actuator of claim 8 wherein said failure condition occurs when power to said actuator is interrupted.

14. The failsafe actuator of claim 8, wherein said plunger comprises a lost motion element configured to allow said drive assembly to complete a drive cycle when said plunger is blocked against movement.

15. The failsafe actuator of claim 8, wherein said drive assembly comprises an electric motor and a gear train configured for driving said plunger.

16. The failsafe actuator of claim 15 wherein said gear train comprises a planetary gear train.

17. The failsafe actuator of claim 8, further comprising a direct indication sensor configured to sense the position of said driven element independently of said plunger.

18. The failsafe actuator of claim 17 wherein said sensor comprises a non-contact sensor.

19. The failsafe actuator of claim 17, wherein said direct indication sensor comprises a probe extending from an actuator housing, said probe configured to follow movement of said driven element.

20. The failsafe actuator of claim 18, wherein said direct indication sensor comprises a Hall effect sensor.

21. The failsafe actuator of claim 8, further comprising a sensor configured to indicate a relative position of said plunger.

22. The failsafe actuator of claim 21, wherein said sensor measures rotational movement of said drive assembly.

23. The failsafe actuator of claim 22 wherein said sensor is a non-contact sensor.

24. The failsafe actuator of claim 23, wherein said sensor is a Hall effect sensor associated with a rotating element of said drive assembly.

25. The failsafe actuator of claim 22, wherein said sensor is further configured to differentiate clockwise and counterclockwise rotational movement.

26. The failsafe actuator of claim 21, wherein said actuator further comprises a latching mechanism configured to maintain said plunger in said second position, and wherein said latch is configured to be actuated in response to said indicated relative position of said plunger.

27. A method for returning an element to a failsafe position in case of a failure condition, said method comprising the steps of:

driving a plunger from a first plunger position to a second plunger position, thereby preloading a stored energy element;

holding said plunger in at least said second plunger position;

detecting said failure condition;

releasing said plunger from said at least second plunger position upon detection of said failure condition; and

driving said plunger from said at least second plunger position to said first plunger position, said element responsive to a position of said plunger such that said element is in said failsafe position when said plunger is in said first plunger position.

28. The method according to claim 27, wherein said plunger is driven from said at least second plunger position to said first plunger position by said stored energy element.

29. The method according to claim 27, wherein said stored energy element comprises at least one of a torsion spring and a clock spring.

30. The method according to claim 27, wherein said failure condition is an interruption of power to said actuator.

31. A method for returning a driven element to a failsafe position in case of a failure condition, said method comprising:

preloading a stored energy element;

detecting said failure condition; and

driving said element to said failsafe position in response to said failure condition by unloading said stored energy element.

32. The method according to claim 31, wherein preloading said stored energy element comprises compressing one of a torsion spring and a clock spring.

33. A stabilizer bar system comprising:

at least one stabilizer bar;

a power source;

an actuator receiving electrical power from said power source, said actuator comprising: a drive assembly configured to drive said at least one stabilizer bar, said drive assembly comprising a plunger having at least a first plunger position, said at least one stabilizer bar responsive to said plunger such that said at least one stabilizer bar is in a failsafe position when said plunger is in said first plunger position; and

a stored energy element configured to drive said plunger to said first plunger position, and hence said at least one stabilizer bar to said failsafe position, upon detection of a failure condition.

34. The system of claim 33, wherein said stored energy element comprises at least one of a torsion spring and a clock spring.

35. The system of claim 33, wherein said drive assembly further comprises an electrically driven motor driving said plunger via a gear train.

36. The system of claim 35, wherein said stored energy element is disposed between

said motor and said gear train, and wherein driving said plunger to said at least first plunger position preloads said stored energy element.

37. A failsafe actuator for returning an actuator driven element to a failsafe position in case of a failure condition, said failsafe actuator comprising:

a drive assembly comprising an electric motor for driving a plunger via a gear train, and a stored energy element configured to drive said plunger from at least a second plunger position to a first plunger position upon said failure condition, said actuator driven element responsive to said plunger such that said actuator driven element is in said failsafe position when said plunger is in said first plunger position;

a lost motion element associated with said plunger configured to allow said plunger to move between said first position and said at least second position when said driven element is blocked from moving;

a direct indication sensor configured to sense the position of said driven element independently of said plunger; and

a sensor configured to sense the relative position of said plunger.

38. The failsafe actuator according to claim 37, wherein driving said plunger from said first plunger position to said at least second plunger position preloads said stored energy element.

39. The failsafe actuator according to claim 38, wherein said stored energy element

comprises at least one of a torsion spring and a clock spring.

40. A method for controlling an actuator comprising:

measuring a time required to drive said actuator a predetermined initial portion of an actuator cycle at a predetermined driving power;

adjusting said driving power for a remainder of said actuator cycle in response to said measured time.

41. The method according to claim 40, further comprising generating a first error signal if a first predetermined time is exceeded to drive said actuator said predetermined initial portion of said actuator cycle.

42. The method according to claim 40, further comprising generating a second error signal if said measured time is less than a second predetermined time.

43. The method according to claim 40, further comprising comparing an expected elapsed time required to drive said actuator a subsequent portion of said actuator cycle relative to said measured time.